SPM_PC_TP3_method1

Samples were filtered through pre-weighed Millipore Isopore membrane filters (polycarbonate, pore size 0.4 µm). The filtered amount ranged from 100 to 750 ml for freshwater samples and from 250 to 1000 ml for seawater samples depending on the SPM-load of the respective sample.

After filtration, filters were rinsed with ca. 50 ml of purified water, dried for two days at 60°C and weighted for determination of total SPM.

SPM_GF_TP3_method1

Samples were filtered through pre-weighed Whatman glass microfibre filters (glass fibre, pore size 0.7 µm, heated to 400°C for 4 h before use to remove carbon contamination). The filtered amount ranged from 100 to 750 ml for freshwater samples and from 250 to 1000 ml for seawater samples depending on the SPM-load of the respective sample.

After filtration, filters were rinsed with ca. 50 ml of purified water, dried for two days at 60°C and weighted for determination of total SPM.

TC_TP3_method1, TIC_TP3_method1, POC_TP3_method1

Samples were filtered through pre-weighed Whatman glass microfibre filters (glass fibre, pore size 0.7 µm, heated to 400°C for 4 h before use to remove carbon contamination). The filtered amount ranged from 100 to 750 ml for freshwater samples and from 250 to 1000 ml for seawater samples depending on the SPM-load of the respective sample.

After filtration, filters were rinsed with ca. 50 ml of purified water, dried for two days at 60°C and weighted for determination of total SPM.

Total carbon (TC) was determined from the GF-filter by high temperature combustion and coulometric detection of CO_2 with a Ströhlein Coulomat 702. Total inorganic carbon (TIC) was determined coulometrically from a parallel GF-filter with an UIC instrument. Particulate organic carbon (POC) was calculated as the difference of TIC and TC.

As TC in freshwater samples is relatively high, and measured values for TIC were below the detection limit, the TIC content was determined only in selected samples. Thus, TC is equivalent to POC in the investigated freshwater environment.